

Application No. 10/033,714

REMARKS

Claims 1 - 92 are in the case.

The applicant has studied the Office Action dated September 23, 2004 and has made the changes believed appropriate to place the application in condition for allowance.

Reconsideration and reexamination are respectfully requested.

Claims 1-12 and 15-92 have been rejected under 35 USC 102(b) as being anticipated by EP 1158571 (Shimizu). This rejection is respectfully traversed.

Claim 1 is directed to an "apparatus for use with a three-dimensional object having a feature and an optical scanner having a scanning surface" wherein the apparatus comprises: "a mounting structure adapted to be disposed on the scanner, said mounting structure having a pitch calibration mark adapted for being read by the scanner ... " It is the Examiner's position that the Shimizu reference "discloses an apparatus for a method of measuring a feature on an object wherein an optical scanner, to obtain an image, is disposed on a mounting surface having a plurality of marks that are read by the scanner." However, even if true, the Examiner has cited no teaching or suggestion of a mounting structure having a pitch calibration mark. Such pitch calibration marks can, for example, permit the scan line resolution of the scanner to be calculated or the pixel resolution of the scanner to be calculated as discussed in the present specification, [see paragraphs 45-47 of the present specification, for example.]

Independent Claims 8, 18 and 30 may be distinguished in a similar fashion.

Claim 44 is directed to a method of analyzing at least one wafer carrier comprising " ... receiving a first set of data representing a first image of a feature of a first wafer carrier; receiving a set of data representing an image of a span between two pitch calibration marks spaced by a predetermined distance and located on a frame adjacent said carrier; calculating a pixel pitch based on said predetermined distance and the number of pixels of said image of said span between said pitch calibration marks; calculating a first value from the first set of data and based on the calculated pixel pitch, the first value corresponding to the first wafer carrier feature ... ". As set forth above, the Examiner has cited no teaching or suggestion in the Shimizu reference of a structure having a pitch calibration mark. Still further, the Examiner has cited no

teaching or suggestion in the Shimizu reference of “receiving a set of data representing an image of a span between two pitch calibration marks spaced by a predetermined distance and located on a frame adjacent said carrier” nor “calculating a pixel pitch based on said predetermined distance and the number of pixels of said image of said span between said pitch calibration marks” nor “calculating a first value from the first set of data and based on the calculated pixel pitch” as required by claim 44. Independent claims 55 and 62 may be distinguished in a similar fashion.

Independent claim 54 is directed to a method of measuring a mounting structure comprising “receiving data corresponding to an image representing a plurality of calibration marks on the mounting structure; determining a first geometric shape formed by the calibration marks; and comparing the first geometric shape with a second geometric shape.” The Examiner has cited no teaching or suggestion in the Shimizu reference of “receiving data corresponding to an image representing a plurality of calibration marks on the mounting structure”, nor “determining a first geometric shape formed by the calibration marks”; nor “comparing the first geometric shape with a second geometric shape” as required by claim 54. Independent claims 73 and 92 may be distinguished in a similar fashion.

Claim 21 is directed to an apparatus for measuring a feature on a side of a wafer carrier comprising “an optical scanner having a transparent scanning surface; a first frame member having a bottom surface and a top surface, the bottom surface being adapted for placement on the scanning surface of the scanner, and the top surface being adapted for receiving the wafer carrier side ...” It is the Examiner’s position that the Shimizu reference discloses a structure “adapted to position the object so that the object is adjacent to the scanning surface of the scanner ...” However, even if true, the Examiner has cited no teaching or suggestion of a frame member having a bottom surface being adapted for placement on the transparent scanning surface of a scanner and a top surface adapted for receiving the wafer carrier side. Instead, it appears that the carrier 18 of the Shimizu reference is placed on pins 20a, 20b, 20c of a kinematic plate 20 which is not described as being a transparent scanning surface.

Independent claim 24 may be distinguished in a similar fashion.

Claim 36 is directed to a method of measuring a feature of a wafer carrier, comprising ... “receiving from a flatbed scanner data representing an image ...” It is the Examiner’s position

that the Shimizu reference discloses an "optical scanner ..." However, even if true, the Examiner has cited no teaching or suggestion of receiving from a flatbed scanner data representing an image to measure a feature of a wafer carrier. Instead, it appears that the carrier 18 of the Shimizu reference is placed on pins 20a, 20b, 20c of a kinematic plate 20 which does not appear to be part of a flatbed scanner.

Independent claims 25, 33, 43, 63, 74, 81 and 82 may be distinguished in a similar fashion.


The dependent claims depend either directly or indirectly from independent claims discussed above. Accordingly, the rejection of these dependent claims is improper for the reasons given above. Moreover, the dependent claims include additional limitations, which in combination with the base and intervening claims from which they depend, provide still further grounds of patentability over the cited art.

The Examiner has made various comments concerning the obviousness of certain features of the present inventions. Applicant respectfully disagrees. Applicant has addressed those comments directly hereinabove or the Examiner's comments are deemed moot in view of the above response.

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In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is earnestly solicited.

Respectfully submitted,

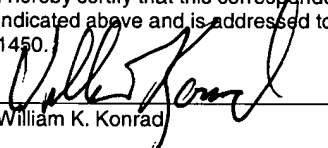
  
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